

Translation

PATENT COOPERATION TREATY

PCT/EP2003/009235



PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 2002P14335WO	FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. PCT/EP2003/009235	International filing date (<i>day/month/year</i>) 20 August 2003 (20.08.2003)	Priority date (<i>day/month/year</i>) 18 October 2002 (18.10.2002)
International Patent Classification (IPC) or national classification and IPC C23G 1/32		
Applicant SIEMENS AKTIENGESELLSCHAFT		

- This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
- This REPORT consists of a total of 5 sheets, including this cover sheet.
- This report is also accompanied by ANNEXES, comprising:
 - ☒ (*sent to the applicant and to the International Bureau*) a total of 3 sheets, as follows:
 - ☐ sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).
 - ☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.
 - ☐ (*sent to the International Bureau only*) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).
- This report contains indications relating to the following items:
 - ☒ Box No. I Basis of the report
 - ☐ Box No. II Priority
 - ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
 - ☐ Box No. IV Lack of unity of invention
 - ☒ Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
 - ☐ Box No. VI Certain documents cited
 - ☐ Box No. VII Certain defects in the international application
 - ☐ Box No. VIII Certain observations on the international application

Date of submission of the demand 29 January 2004 (29.01.2004)	Date of completion of this report 26 May 2004 (26.05.2004)
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2003/009235

Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

- ☐ This report is based on translations from the original language into the following language _____, which is language of a translation furnished for the purpose of:
- ☐ international search (under Rules 12.3 and 23.1(b))
 - ☐ publication of the international application (under Rule 12.4)
 - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

- ☐ The international application as originally filed/furnished
- ☒ the description:
- pages _____ 1-9 _____, as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☒ the claims:
- pages _____, as originally filed/furnished
- pages* _____, as amended (together with any statement) under Article 19
- pages* _____ 1-12 _____ received by this Authority on _____ 21 April 2004 (21.04.2004)
- pages* _____ received by this Authority on _____
- ☒ the drawings:
- pages _____, as originally filed/furnished
- pages* _____ 1/1 _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

4. ☒ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

I. Basis of the report

1. This report has been drawn on the basis of *(Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.)*:

The applicant has deleted the following feature from claim 1:

the treatment of the component with a complexing agent, in an intermediate or final step.

However, this feature is described as essential in the original disclosure and, in view of the technical problem addressed, it is indeed essential for the function of the invention. The deletion of said feature introduces substantive matter which, contrary to PCT Article 34(2)(b), goes beyond the disclosure in the international application as filed.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/EP 03/09235

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. Statement**

Novelty (N)	Claims	1-12	YES
	Claims		NO
Inventive step (IS)	Claims	1-12	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-12	YES
	Claims		NO

2. Citations and explanations**1. Reference is made to the following documents:**

D1: US-A1-2002074017

D2: Derwent WPI; AN: 1986-274660 (JP (A) 61199085)

D3: US-A-2710271.

2. Document D1 discloses a method for cleaning and refurbishing degraded turbine components that have a coating of MCrAlY on the outer surfaces. Said components were first dipped in a KOH salt bath, treated for 10 minutes at 575°F (300°C) and rinsed with water. The MCrAlY layers were then removed with acid, in the known manner. The refurbished components could be re-used after the application of a new protective coating (see claims; drawings; paragraphs 0015, 0017 and 0023-0027).

2.1 Document D2 discloses a method for the removal of foundry sand (a coating) from turbine components. The component is first dipped in an NaOH melt and then repeatedly washed with HCl.

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- 2.2 Document D3 discloses a method for pickling steel, in particular stainless steel, or a nickel alloy. Said method comprises a treatment in a salt bath followed by treatment in one or more acid baths (see examples).
3. None of documents D1 to D3 discloses the use of a salt bath containing sodium hydroxide and/or potassium hydroxide as well as sodium oxide. Thus, the subject matter of claims 1-12 is novel (PCT Article 33(2)).

The problem addressed by the use of the salt bath according to the present application is regarded as that of improving the cleaning performance achieved with the known steps.

Sodium oxide intensifies the chemical attack on the regions to be removed and thus, in combination with the acid treatment, solves the above problem. This teaching is not rendered obvious by any of the cited documents. An inventive step can consequently be acknowledged (PCT Article 33(3)).